UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,088	06/28/2001	Carl M. Ellison	42390P11770	9497

8791 7590 05/16/2005

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER	
SHIFERAW, ELENI A	

ART UNIT	PAPER NUMBER
2136	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/896,088	ELLISON ET AL.	
	Examiner	Art Unit	
	Eleni A. Shiferaw	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2001*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17 and 19-34* is/are pending in the application.

4a) Of the above claim(s) *18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17 and 19-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Final rejection

Response to Amendment

1. Claims 1-17, and 19-34 are pending in this office action, claims 1, 9, 11-14, 16-17, and 24-25 are amended, and claims 30-34 are added.

2. Applicant's arguments/amendments filed February 23, 2005 have been considered but are moot in view of the new ground(s) of rejection.

3. Examiner accepts the amended abstract.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-8, 13-15, 19-26, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al. (Ohashi, Patent Number: 5,889,861) in view of Emerson et al. (Emerson, Patent No.: US 6,664,969 B1).

As per claim 1 Ohashi teaches a method comprising:

(a) generating a key result partially based on a global identifier of a source and an estimated current time at the source (Ohashi col. 4 lines 51-57, abstract and fig. 7 No. 703);

(b) producing a first time-varying item based on the key result (Ohashi col. 4 lines 53-65; broadcasting); and

Ohashi fail to teach hashing, and

(c) presenting the first time-varying item for sensory comparison with a second time-varying item being presented at the source.

However Emerson discloses periodically generating a hash (Emerson col.7 lines 33-53), and

(c) presenting the first time-varying item for sensory comparison with a second time-varying item being presented at the source (Emerson col.7 lines 33-53 and abstract; periodically comparing the hash of video graphics).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Emerson within the system of Ohashi because it would determine if the image blocks have changed and greatly improve security (col. 2 lines 30-33, and col. 5 lines 13-16).

As per claim 13, Ohashi teaches a software stored in platform readable medium executed by internal circuitry within a computing unit, the software comprising:

(a) a first software module to periodically generate a key result based on at least a global identifier of a source and an estimated current time at the source (Ohashi col. 4 lines 51-57, abstract, and fig. 7 No. 703);

(b) a second software module to produce successive images varied after each selected time interval for display on a display screen of the computing unit, a first time-varying image of the successive images being based on a first key result (Ohashi col. 4 lines 53-65, and fig. 4 No. 114B; broadcasting video); and

Ohashi fail to teach hashing, and

(c) a third software module to present the successive images for sensory comparison with a succession of time-varying images at the source.

However Emerson discloses:

periodically generating a hash (Emerson col.7 lines 33-53), and

(c) a third software module to present the successive images for sensory comparison with a succession of time-varying images at the source (Emerson col.7 lines 33-53 and abstract; periodically comparing the hash of video graphics).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Emerson within the system of (Ohashi because it would determine if the image blocks have changed, and greatly improve security (Emerson col. 2 lines 30-33 and col. 5 lines 13-16).

As per claim 19, Ohashi teaches a computing unit comprising:

a casing (Ohashi Fig. 3 No. 31-33);

an input/output (I/O) interface (Ohashi col. 6 lines 28-41);

a device that provides sensory data for a user, the device being integrated into the casing (Ohashi col. 5 lines 5-9); and

internal circuitry contained within the casing and controlling information presented by the device, the internal circuitry to generate a key result based on a global identifier of a source and an estimated current time at the source (Ohashi col. 4 lines 51-57, abstract and fig. 7 No. 703).

Ohashi fail to teach hashing, and

However Emerson discloses:

periodically generating a hash (Emerson col.7 lines 33-53), and

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Emerson within the system of (Ohashi because it would determine if the image blocks have changed, and greatly improve security (Emerson col. 2 lines 30-33 and col. 5 lines 13-16).

As per claim 34, a software stored in platform readable medium executed by internal circuitry within a computing unit, the software comprising:

(a) a first software module to periodically generate key results based on at least a global identifier of a source and an estimated current time at the source providing the global identifier (Ohashi col. 4 lines 51-57, abstract, and fig. 7 No. 703);

(b) a second software module to produce successive audible sounds varied after each selected time interval for playback over speakers of the computing unit, a first time-varying audible sound of the audible sounds being based on a first key hash result of the key results (Ohashi col. 4 lines 53-65); and

Ohashi fail to teach hashing, and

(c) a third software module to playback the successive audible sounds for sensory comparison with a succession of audible sounds contemporaneously produced at the source in order for the user of the computing unit to verify accurate receipt of the global identifier of the source.

However Emerson discloses periodically generating a hash (Emerson col.7 lines 33-53), and

(c) a third software module to playback the successive audible sounds for sensory comparison with a succession of audible sounds contemporaneously produced at the source in order for the user of the computing unit to verify accurate receipt of the global identifier of the source (Emerson col.7 lines 33-53 and abstract; periodically comparing the hash of video graphics).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Emerson within the system of Ohashi because

it would determine if the image blocks have changed and greatly improve security (col. 2 lines 30-33, and col. 5 lines 13-16).

As per claim 2, the combination of Ohashi and Emerson teach the method, wherein the presenting of the first time-varying item is contemporaneous with presentation of the second time-varying item if the global identifier of the source is accurately received and the current time at the source has been accurately estimated (Emerson col. 7 lines 23-52, Ohashi col. 4 lines 51-57 and fig. 7 No. 703). The rational for combing are the same as claim 1 above.

As per claim 3, the combination of Ohashi and Emerson teach the method, further comprising: (d) repeating (a), (b) and (c) for each subsequent presentation of a newly produced first time-varying item and comparison of the newly produced first time-varying item with a newly produced and presented second time-varying item (Emerson col. 7 lines 23-52, Ohashi col. 4 lines 51-57 and fig. 7 No. 703). The rational for combing are the same as claim 1 above.

As per claim 4, Ohashi and Emerson teach all the subject matter as described above. In addition Ohashi teaches the method, wherein prior to generating the key hash result, the method further comprises:

receiving a verification packet from the source, the verification packet including the global identifier of the source and a local time value at which the verification packet was formed

at the source (Ohashi col. 6 lines 59lcol. 7 lines 6).

As per claim 5, combination of Ohashi and Emerson teach the method, wherein the verification packet further includes a table inclusive of items displayed as the first time-varying item and the second time-varying item (Ohashi col. 5 lines 27-37, and Emerson col. 7 lines 40-50). The rational for combing are the same as claim 1 above.

As per claim 6, both Ohashi and Emerson teach all the subject matter as described above. In addition Ohashi teaches the method, wherein the verification packet further includes a data field to contain information to be transferred (Ohashi col. 5 col. 5 lines 32-37).

As per claim 7, both Ohashi and Emerson teach all the subject matter as described above. In addition Emerson teaches the method, wherein the information includes a lookup table for selection of the item to be presented (Emerson Fig. 5 No. 202).

As per claim 8, both Ohashi and Emerson teach all the subject matter as described above. In addition Emerson teaches the method, wherein the verification packet further includes a digital signature of contents of the verification packet (Emerson col. 7 lines 40-45). The rational for combing are the same as claim 1 above.

As per claim 14, combination of Ohashi and Emerson teach the software, wherein the first, second and third software modules repeatedly generate successive key hash results, produce a first time-varying image of successive images using the first key hash result and display the first time-varying image for comparison with a second time-varying image being one of the successive images produced and displayed at the source (Ohashi col. 4 lines 51-57, abstract and fig. 7 No. 703, Emerson col.7 lines 33-53). The rational for combing are the same as claim 13 above.

As per claim 15, combination of Ohashi and Emerson teach the software, further comprising: a fourth software module to receive a verification packet from the source, the verification packet including the global identifier of the source and a local time value at which the verification packet was formed at the source (Ohashi col. 6 lines 28-41, and Emerson col.7 lines 33-53). The rational for combing are the same as claim 13 above.

As per claim 20, Ohashi and Emerson teach all the subject matter as described above. In addition Emerson teaches the computing unit, wherein the internal circuitry is a memory and a processor accessing information from the memory (Emerson col. 5 lines 21-35). The rational for combing are the same as claim 19 above.

As per claim 21, Ohashi and Emerson teach all the subject matter as described above. In addition Ohashi teaches the computing unit, wherein the I/O interface is an antenna to receive signals

from the source and provide the signals to the internal circuitry for processing (Ohashi Fig. 3 No. 31-33).

As per claim 22, Ohashi and Emerson teach all the subject matter as described above. In addition Ohashi teaches the computing unit, wherein the I/O interface to receive a verification packet including at least the global identifier and a local time value at which the verification packet was formed prior to transmission to the computing unit (Ohashi col. 4 lines 50-55).

As per claim 23, the combination of Ohashi and Emerson teach the computing unit, wherein the internal circuitry generates the key hash result based on the global identifier, the estimated current time at the source and data contained in a data field of the verification packet (Ohashi col. 4 lines 50-55, Emerson col. 7 lines 40-52). The rational for combing are the same as claim 19 above.

As per claim 24, Ohashi and Emerson teach all the subject matter as described above. In addition Emerson teaches the computing unit, wherein the device is a display screen that displays the information being time-varying images (Emerson fig. 4 No. 4). The rational for combing are the same as claim 19 above.

As per claim 25, the combination of Ohashi and Emerson teach the computing unit, wherein device is at least one speaker that playback audible sounds which vary in time based on a value of the key hash result (Ohashi fig. 4 No. 31-33, Emerson col. 7 lines 40-50). The rational for

combing are the same as claim 19 above.

As per claim 26, the combination of Ohashi and Emerson teach the computing unit, wherein device is at least a tactile device that produces Braille patterns which vary in time based on a value of the key hash result (Ohashi col. 4 lines 50-55, and Emerson col. 7 lines 40-50). The rational for combing are the same as claim 19 above.

5. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregg et al. (Gregg, Patent Number: 5,425,020) in view of Ohashi et al. (Ohashi, Patent Number: 5,889,861), and Emerson et al. (Emerson, Patent No.: US 6,664,969 B1).

As per claim 27, Ohashi teaches a network comprising:

a first computing unit to (i) transmit successive verification packets each including a static global identifier and a varying local time value realized at the first computing unit during formation of that verification packet (Gregg col. 4 lines 16-28; a non sequenced frame with identifier and local time is received),

a second computing unit to (i) receive each verification packet, (ii) compute a clock skew to determine a time difference between the first computing unit and the second computing unit in response to receipt of a first verification packet (Gregg col. 4 lines 31-46),

Gregg does not teach:(ii) generate successive first time-varying items based on contents provided within their corresponding verification packet, and (iii) present the first time-varying items in successive fashion,

However Ohashi discloses (ii) generate successive first time-varying items based on contents provided within their corresponding verification packet (Ohashi col. 5 lines 27-37), and (iii) present the first time-varying items in successive fashion (Ohashi col. 5 lines 27-37, and col. 8 lines 35-38);

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Ohashi within the system of because it would produce a decrypted time-varied item (Ohashi col. 5 lines 27-37).

Gregg and Ohashi fail to explicitly teach comparing the generated second time-varying item with the first time-varying item.

However Emerson teaches (iii) generate successive second time-varying items based on contents provided by their corresponding verification packet (Emerson col. 7 lines 22-52; digital signature is periodically generated to compared to verify if the image is changed or not), and (iv) present the second time-varying items for comparison with the first time-varying items (Emerson col. 7 lines 22-52).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Emerson within the combination system of Gregg and Ohashi because it would determine if the image blocks have changed, and greatly improve security (Emerson col. 2 lines 30-33 and col. 5 lines 13-16).

As per claim 28, Gregg, Ohashi and Emerson teach all the subject matter as described above. In addition Ohashi teaches the network, wherein the first computing unit communicates with the second computing unit over a wireless link (Ohashi fig. 4).

As per claim 29, Gregg, Ohashi and Emerson teach all the subject matter as described above. In addition the combination of Ohashi and Emerson teach the method, wherein verification that the second computing unit has received the global identifier of the first computing unit when the second time-varying items are presented and changed contemporaneously with the first time-varying items (Emerson col. 7 lines 23-52, Ohashi col. 4 lines 51-57 and fig. 7 No. 703). The rational for combing are the same as claim 27 above.

6. Claims 9-12, 16-17, and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al. (Ohashi, Patent Number: 5,889,861) in view of Emerson et al. (Emerson, Patent No.: US 6,664,969 B1), and further in view of Gregg et al. (Gregg, Patent Number: 5,425,020).

As per claim 9 the combination of Ohashi and Emerson teach the method, wherein the generating of the key hash result further performing a cryptographic hash operation on a combination of at least the global identifier and the estimated current time to generate the key hash result (Ohashi fig. 5 No. S503, and Emerson col.7 lines 33-53),

Ohashi and Emerson fail to teach a clock skew by recording a receipt time upon which the verification packet is received and computing a time difference between the receipt time and the local time value; and

computing the estimated current time at the source corresponding to a current time at a destination based on the clock skew;

However Gregg discloses a clock skew by recording a receipt time upon which the verification packet is received and computing a time difference between the receipt time and the local time value (Gregg col. 4 lines 31-46); and

computing the estimated current time at the source corresponding to a current time at a destination based on the clock skew (Gregg col. 4 lines 31-46);

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Gregg within the combination system of Ohashi and Emerson because it would verify packets (Gregg col. 5 lines 6-8).

As per claim 10, Ohashi, Emerson and Gregg teach the subject matter as described above. In addition the combination of Ohashi and Emerson teach the method, wherein the producing of the first time-varying item includes accessing an entry of a lookup table using the key hash result and recovering contents of the entry as the first time-varying item (Ohashi col. 5 lines 28-37, and Emerson col. 7 lines 40-52; Ohashi generates a time-varying result/key to recover item, and

Emerson generates periodic hash and stores the periodic hash in the look up table to check if the image is still the same).

As per claim 11, Ohashi, Emerson and Gregg teach the subject matter as described above. In addition the combination of Ohashi and Emerson teach the method, wherein the presenting of the first time-varying item for sensory comparison comprises displaying the first time-varying item contemporaneously with a display of the second time-varying item for visual comparison (Emerson col. 7 lines 23-52, Ohashi col. 4 lines 51-57 and fig. 7 No. 703).

As per claim 12, Ohashi, Emerson, and Gregg teach all the subject mater as described above. In addition Emerson teaches the method, wherein the presenting of the first time-varying item for sensory comparison further contemporaneous play back of audible sounds associated with both the first and second time-varying items for auditory comparison (Emerson fig. 4 No. 114B).

As per claim 16, the combination of Ohashi and Emerson teach the software, wherein the first software module generates the first key hash result (Ohashi col. 4 lines 44-57), and performance of a cryptographic hash operation on a combination of at least the global identifier and the estimated current time (Ohashi fig. 5 No. S503, and Emerson col.7 lines 33-53),

Ohashi and Emerson fail to teach computation of a clock skew by recording a receipt time upon which the verification packet is received and computing a time difference between the

receipt time and the local time value, computation of the estimated current time at the source corresponding to a current time at a destination using the clock skew.

However Gregg discloses computation of a clock skew by recording a receipt time upon which the verification packet is received and computing a time difference between the receipt time and the local time value, computation of the estimated current time at the source corresponding to a current time at a destination using the clock skew (Gregg col. 4 lines 29-46).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Gregg within the combination system of Ohashi and Emerson because it would verify packets (Gregg col. 5 lines 6-8).

As per claim 17, Ohashi, Emerson and Gregg teach the subject matter as described above. In addition the combination of Ohashi and Emerson teach the software, wherein the second software module produces the first time-varying item by accessing an entry of a lookup table using the first key hash result and recovering contents of the entry as the first time-varying item (Ohashi col. 5 lines 28-37, and Emerson col. 7 lines 40-52; Ohashi generates a time-varying result/key to recover item, and Emerson generates periodic hash and stores the periodic hash in the look up table to check if the image is still the same).

As per claim 30, the combination of Ohashi and Emerson teach the method, wherein producing of the first time-varying item comprises accessing bits of at least a portion of the key hash result to determine horizontal or vertical orientation of the first time-varying item being a displayable

image (Ohashi col. 4 lines 50-55, and Emerson col. 7 lines 50-60). The rational for combing are the same as claim 1 above.

As per claim 31, the combination of Ohashi and Emerson teach the method, wherein producing of the first time-varying item comprises accessing bits of at least a portion of the key hash result to determine one or more selected colors of the first time-varying item being a displayable image (Ohashi col. 4 lines 50-55, and Emerson col. 7 lines 50-60). The rational for combing are the same as claim 1 above.

As per claim 32, the combination of Ohashi and Emerson teach the method, wherein producing of the first time-varying item comprises accessing bits of at least a first portion of the key hash result to a type of musical note of the first time-varying item being an audible sound (Ohashi col. 4 lines 50-55, and Emerson col. 7 lines 50-60; it would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Ohashi's and Emerson's broadcasting and video item to audible sound, and/or musical because it would produce audible data).

As per claim 33, the combination of Ohashi and Emerson teach the method, wherein producing of the first time-varying item further comprises accessing bits of at least a second portion of the key hash result to determine one of a duration, a meter rate or an octave change of the audible sound (Ohashi col. 4 lines 50-55, and Emerson col. 7 lines 50-60; it would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Ohashi's and

Emerson's broadcasting and video item to audible sound, and/or musical because it would produce audible data). The rational for combing are the same as claim 1 above.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eleni Shiferaw

May 10, 2005

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100